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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,924	09/16/2003	Kenneth A. Kaufman	NGC-00083 (11-1178)	2295
7590	11/16/2004		EXAMINER	
John A. Miller Warn, Burgess & Hoffmann, P.C. P.O. Box 70098 Rochester Hills, MI 48307			DINH, TRINH VO	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/663,924	KAUFMAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Trinh Vo Dinh	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 15 July 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 11 and 12 is/are rejected.

7) Claim(s) 1-10 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 16 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>09/16/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION*****Claim Objections***

1. Claims 1, 5 and 8 are objected to because of the following reasons:

In claim 1, line 6, it is unclear what “front and rear faces” belongs. Do the “front and rear faces” belong to the single stiff grid or the boom section? The Examiner suggests changing “front and rear faces” to --front and rear faces of the single stiff grid--.

In claim 1, page 16, line 8, “said front face of said grid” has no antecedent basis.

In claim 5, line 4, “said front face of said boom” has no antecedent basis.

In claim 8, line 3, “said rear face of said grid” has no antecedent basis.

Corrections are required.

***Drawing***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “an axis” in claim 1, line 6, “a backsheet” in claim 8, line 2 must be shown. No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The

replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Vines (US 4,201,991).

Vines discloses integrated reflector and boom assembly (Fig. 1) comprising a surface of stiff reflective sheet material (30), a stiff grid having a first region (14) for supporting said surface and a second region (12) defining a boom, said second region (12) being contiguous with said first region (14), said grid having an axis of symmetry (unlabeled in Fig. 1), each of said first and second regions including a front face and a rear face, said front face of said first region being larger in area than said front face of said second region and having a profile to mate with said surface, said surface being bonded to at least said front face of said first region (col. 2, lines 30-36) wherein said stiff grid further comprising a plurality of ribs (unlabeled in Fig. 1) and wherein at least some of said ribs extend in parallel in one piece from said first region (14) into said

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second region (12) and are positioned symmetrical to said axis of symmetry. Vine furthermore discloses a straight rib (centered rib in each element 14) extending in one piece along said axis of symmetry from said first region (14) into said second region (12).

***Allowable Subject Matter***

5. Claims 1-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.
6. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of record fail to teach an integrated reflector and boom assembly comprising a facesheet, a series of stiff interlocking ribs defining a reflector section and boom section wherein the interlocking ribs including a first rib, a second, third plurality of ribs, and an additional straight rib positioned in said boom section, said additional straight rib being oriented at right angles to and interlocked to each of said first, second and third ribs of said first plurality of straight ribs, said second and third plurality of straight ribs extending through said reflector section with a minority of straight ribs in each of said second and third plurality of straight ribs also extending into said boom section, and said facesheet being bonded to an edge of said first, second and third plurality of ribs located in said front face of said grid within said reflector section.

***Inquiry***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Trinh Vo Dinh  
November 09, 2004